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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,563	08/18/2003	James Edward Bertram		3417

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EXAMINER

DRODGE, JOSEPH W

ART UNIT	PAPER NUMBER
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1723

DATE MAILED: 05/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/642,563

Applicant(s)

BERTRAM, JAMES EDWARD

Examiner

Joseph W. Drodge

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☒ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. 051405.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

Claim 4 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from more than one dependent or independent claim. See MPEP § 608.01(n). Accordingly, the claim has not been further treated on the merits.

Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. This claim is an omnibus type claim.

In claim 5, mere reference to drawings does not constitute defined limitations of an examinable patent claim.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeSimone et al patent 5,160,606 in view of Rosenblatt patent 6,328,882.

DeSimone et al disclose graywater diverter vessel assembly comprising a valve diversion assembly (see especially column 1, lines 49-56) that includes valves 46 and 51 and vertical connections to outlet 28 from a plumbing fixture and downstream connection to sewage system cleanout 44, as well as side connections to conduits 24 and 40 communicating with tank 12, these side connections also coupled with the valve diversion assembly. Also disclosed within the tank are an upper in-flow connection point to conduit 24 for allowing water into the tank, an

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overflow connection for water to flow into overflow conduit 40 and a connection to conduit 48 to pass water on towards filter 54 and eventual recycling use of collected gray water.

The claims differ in requiring the overflow connection and lower outflow connection to be at the side of the tank and near the base of the tank, itself. However, Rosenblatt patent 6,328,882 teaches a gray water collection tank that has such arrangement of inlet, overflow and lower outflow connections. It would have been obvious to one of ordinary skill in the art to have modified the DeSimone et al system by modifying the tank overflow connection to be on the tank sidewall and the connection for passing on recycled gray water to be near the base of the tank, as taught by Rosenblatt, to enable a more compact retrofitting of the entire system into a household plumbing system and simplify need for pipe connections and also to simplify tank design.

For claim 2, DeSimone also discloses the tank and valve assembly being for handling of household generated gray water at column 1, lines 9-29 and column 2, lines 39-43.

For claim 3, DeSimone et al also disclose the tank and valve assembly being located at a lower elevation than plumbing traps 26 and 42.

#### DISCUSSION OF CLAIM 4

Even though claim 4 is not officially treated on the merits, due to its being written as an improper multiple dependent claim, the subject matter thereof is deemed to be obvious from further consideration of teaching references Oison patent 3,915,857 showing filters including mesh filters tightly located and sealed in a holding and collection tank for gray water, so as to provide more purified gray water for recycling in a compact arrangement, while Leek patent 5,147,532 teaches UV resistant PVC materials for a holding tank in a system for purifying and recirculating gray water.

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FOLLOWING PROPOSED CLAIMS WOULD DISTINGUISH OVER THE PRIOR ART:

1. A graywater diverter and filtering plumbing device connectable into a vertical wastepipe, carrying graywater from a building, for selective diversion and filtration of graywater for constant flow and recycling under gravity without need for graywater storage or any external power source, wherein said device comprises:

(a) a vessel assembly including a vessel housing, a first, upper in-flow connector point for receiving graywater from the wastepipe, a second lower filtered out-flow connector point for discharging filtered graywater for recycle, and a third overflow connector point for discharge of overflowing water from the vessel back into the wastepipe;

(b) a diverter assembly having upper and lower wastewater pipe connection sockets, each connectable into the vertical wastepipe, and a valve between the connection sockets constructed and arranged to give an user the option of flowing graywater directly downward through the upper and lower wastewater pipe connection sockets for sewer disposal, or alternatively set to divert the downward flowing graywater so it is directed to the vessel housing for filtration before exiting the vessel assembly through the lower out-flow connector point for subsequent recycling;

(c) a graywater filter situated in the vessel housing;

(d) a gas-tight filter access lid to the vessel housing for users to open and close and have access to the graywater filter for servicing; and

(e) an overflow pipe assembly, coupled between the vessel assembly overflow connector point and the lower wastewater pipe connection socket, to operate when the valve has been set to divert the graywater for filtration, and in the event of blockage of the the filter or out-

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flow connection point, to automatically allow graywater to overflow back from the vessel housing and bypass the filter to exit the lower wastewater pipe connection socket for disposal to sewer, without inhibiting the continued free flow of graywater from the building.

2. The graywater device of claim 1, wherein the diverter assembly is operable such that when the valve is set for disposal graywater is not recycled and when it is set for recycling, graywater will not flow to sewer disposal, except when blockage causes flow through the overflow pipe assembly.

3. The graywater device of claim 1, wherein the device is installable into a vertical wastepipe below the building's lowest connected plumbing fixture's water trap, and so as to overcome the need for any sewer anti-backflow device.

4. The graywater device of claim 4, wherein the vessel assembly and access lid are manufactured from ultra-violet resistant PVC materials.

The proposed claims would distinguish over the closest prior art, Rosenblatt and DeSimone, in view of particular arrangement of upper and lower pipe connection sockets, valve, overflow pipe assembly and vessel assembly connector points providing a relatively compact and direct flow arrangement with fewer components.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Drodge at telephone number 571-272-1140. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker, can be reached at 571-272-1151. The fax phone number for the examining group where this application is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either private PAIR or Public PAIR, and through Private PAIR only for unpublished applications. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JWD

May 18, 2005

  
JOSEPH DRODGE  
PRIMARY EXAMINER